

MANUAL
OF THE
HIGH SCHOOL BOARD,
STATE OF MINNESOTA.

PART IV.
SYLLABUS FOR GRADED SCHOOLS.

*ISSUED BY THE DEPARTMENT OF PUBLIC
INSTRUCTION.*

1891.

MINNEAPOLIS, MINN.
HARRISON & SMITH, STATE PRINTERS.
1892.

NOTE.

This part (IV.) of the Manual is printed in a separate edition for the use of all schools interested in lower grade work. There is a large number of schools of independent districts that should be perfecting their grades; and in this they will have the reorganized standard and many valuable suggestions as to methods of work. This part may be used also with profit in teachers' meetings, whether of graded or ungraded schools, as a text in the discussion of methods and grades.

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Supt. Public Instruction.

PART IV.

SYLLABUS FOR GRADED SCHOOLS.

ARRANGED BY SUBJECTS IN EIGHT GRADES.

§ I. GENERAL SUGGESTIONS.

1. CLASSIFICATION.—Pupils should be so graded and classified that their progress may not be retarded by the indolent and lazy. The frequent promotion of individual pupils who are faithful and energetic will prevent injustice of this kind. Organization should be flexible enough to promote children as fast as they are able to advance.

2. PROMOTIONS should be made regularly twice each year. By this means bright pupils can advance with regularity while the slower ones are not so discouraged when kept back as by the usual plan of promoting but once a year, in which case a whole year is lost.

3. TEXT-BOOKS.—It must be kept in mind throughout the course that text-books are not to be slavishly followed, but should be supplemented freely in all the subjects pursued by careful oral instruction and by the use of good reference books.

4. GENERAL CONDITIONS.—As a requisite to *good teaching* it is assumed that the teacher has an adequate knowledge of the nature of the being who is to be educated; of the subjects or material used in educating; of how to bring the child and the educating material in proper contact, or knowledge of principles, methods and devices; and also that he has acquired a reasonable degree of skill in practical work.

5. PHYSICAL EDUCATION.—A prompt, exact, business-like way of conducting exercises is an essential part of school training, as "physical conditions have a psychical parallel." In view of this fact, attention to the physical conditions under which work is done, the arranging of proper work and rest periods with appropriate exercises for each, attention to the condition of rooms in regard to light, heat, ventilation, and the arrangement of furniture, also to neatness, cleanliness and order, care of regarding the position and bearing of children in standing, sitting and walking, are all of great importance.

6. PHYSICAL EXERCISES.—These should have a regular place daily on the program. Systematic exercise, rightly conducted, has a direct bearing upon health, strength, ease and gracefulness of carriage, and through these contributes something to courage, firmness, promptness and decision in action. It doubtless has an important relation to temperance and hygiene, and puts children in a good attitude for mental effort.

7. VENTILATION AND HEATING.—All school rooms should be thoroughly aired before and after school sessions, and the air should be changed at the end of each hour during the sessions. While this is being done pupils should be given some form of physical exercise to prevent their taking cold.

In addition to the periodical change of air in the room, each teacher should endeavor to secure for his room a steady supply of pure air; but this must be so managed as to prevent the necessity of pupils being exposed to draughts from open windows or doors.

A reliable thermometer should be placed in each school-room, hung so as to mark the mean temperature of the room as nearly as possible. The teacher should see that the average temperature is from 68° to 70° Far.

8. MENTAL TRAINING.—The teacher should recognize the present real attainments and need of each pupil. Because fundamental differences in the mental power of different persons are due to difference in degrees and forms of discrimination, the teacher should see that the fundamental problem of educators is how to increase the seeing and knowing power of pupils in different lines of work. In this connection, a prime requisite of teaching is so clear a presentation of all new truths that average children not only can see, but cannot well help seeing them. With large classes of facts a real impression made with clearness, precision and force, saves much repetition. Cold, negative, vague teaching is a great waste of time and power.

9. DRILL.—Again, it must be remembered that the development of a fact or an idea is only one part of the work of teaching. To make the fact or idea stay in the mind of the learner, in such a way as to be of value to him afterwards, requires a thorough *drill* made up of repetition and frequent reviews. The teacher should be careful not to let the drill degenerate into a dull, formal, mechanical grind.

10. OBJECTIVE WORK.—Objective work should always be done when needed, but always done for a specific purpose. Readiness in using apt illustrations is an important part of the teacher's art; but the laws and limitations of illustrative work, especially of objective work, should be well understood. The end of object illustrations is clear vision of some truth of form, quantity, quality, relation, etc. When this vision is gained, the work should be carried forward to its only proper conclusion, a complete *mental* result. Until this is done nothing is accomplished. It is a pedagogical mistake to project a child's mind outward over a series of objects and have no moments of home-

coming with new possessions. Objects used to any other end than this are a means of destruction and mental dissipation.

11. LOGICAL WORK.—Thought is the conclusion of a comparison of certain elements of knowledge gained through perception; if these elements are indistinct or imperfect, no clear, vigorous thinking ensues.

This mental digestion—of comparing, analyzing and recombining the raw materials furnished by the memory into general notions, generalizations and classifications—is the chief distinguishing mark of an educated mind: it constitutes the power, originality and style of a thinker, and is the essential condition of real language training, but it is too much ignored in the daily work of the schools. Sound thinking should become a habit, and should displace the thoughtless, mechanical learning of words. The mental and other school habits that the pupils are forming are of more importance than many of the facts they are reciting about. Clear, exact, deep thinking has a certain definite relation to energy and efficiency in action.

12. ADVANCE EQUALLY.—Teachers are to take especial care that all studies are advanced equally, and that no favorite study or exercise receives undue attention.

13. MORAL TRAINING.—Teachers should use opportunities of giving instruction that may tend to improve the dispositions and character of pupils, but there can be no success in this department without genuine sympathy, tact, perfect self-control and quick perception in the teacher.

Not long lectures or stale philosophy are needed, but a kind, personal interest in pupils, which extends even to their homes. Teach cheerfulness by being cheerful, kindness by being uniformly kind, politeness by being polite, and using, and teaching pupils to use, the current forms of courtesy. Be on the lookout for opportunities to give lessons on practical morality. Train all children to judge of and regulate their own actions by applying the test contained in the "Golden Rule."

Remember, however, that the prime essential of moral education is *doing*. Many know what is right who have not the strength to do it. The end of moral education is so to train pupils *to act* that correct moral habits of honesty, truthfulness, self-control, etc., become second nature, and require no struggle with circumstances or self.

As good habits are formed by what is done, so bad habits are forgotten by disuse.

The prevalent evils of the day, disregard of truth and duty, wastefulness, want of fidelity to engagements, petty dishonesty, cruelty to animals and associates, and coarseness of manners are matters which suggest the need of constant training in an opposite direction.

PERSONAL CLEANLINESS and tidiness, care of books and school property, quiet, orderly conduct on the streets, respect for parents and superiors, temperance in eating and drinking, evil effects of tobacco and intoxicants, the danger of reading bad books and papers—these and other kindred subjects should

receive particular care and thought, and form the topics of instruction in lessons, both special and incidental, when opportunities occur for such lessons. Much individual work will be needed here.

CONSTANT OCCUPATION will be found the best preventive of mischief in any grade. A teacher's disciplinary power and success in teaching may be, in a great measure, tested by his ability and skill in selecting such occupations for his pupils as will exercise the mind, cultivate the hand, quicken the ambition, strengthen the will, develop courage and conscious power and make the pupils ready to meet new difficulties, having faith that their teacher will ask them to do nothing of which they are incapable.

The constant aim should be to bring out the MOST and the BEST that is in each pupil. A teacher's skill in inspecting the results of effort, and in giving or withholding praise will largely determine the degree of success that he will achieve in working to secure the above end.

§ II. MUSIC.

Vocal music should be a regular part of the work in each grade. As an aid to discipline alone its value is great, but even as a mere rest something that is musically good should be selected. Rote singing of good, pleasing songs, if the teacher can render them well, is always inspiring and valuable, and is a ready way of educating the ear and the taste, and of cultivating sweet tones, clear intonation, and intelligent expression. Only good music and good words should be used; never should songs that rank with and suggest objectionable literature be tolerated. With little children, the selections should be of a lively and joyous character. Any skillful teacher of the common branches, if he have a correct ear and an ordinarily good voice, can be a good music teacher if he will.

The greater part of musical training in school is necessarily instruction and practice in note or sight singing.

The children should never sing in a cramped position. A firm, erect carriage is necessary to natural breathing, good tones and enjoyment of the exercise. The habit of using a pure, sweet quality of voice should be formed by having the little ones sing softly. They should pronounce distinctly, avoid blending the final consonant with the following word, and at first, sing songs of high rather than low pitch, avoiding exclusive use of the key of C. The correct use of the voice should be taught in the daily reading lessons.

In giving the key, a good pitch instrument is almost indispensable.

§ III. DRAWING.

As drawing forms the foundation of industrial education its importance can hardly be overestimated. The proper beginning, in the primary grades, is with form study which should

train both eye and hand and give a habit of close observation. The mutual results should be exact mental definition of form or imaging power, and definite thinking which is later to express itself in drawing.

The solids should first be studied as wholes. the children deriving their ideas through the senses of touch and sight. From the solid the notions of surface, face, line and point should successively be abstracted. With the study of faces, the kindergarten tablets may be fittingly introduced, and used both in laying figures to represent various objects and in inventing decorative figures to use as surface covering patterns. These tablets are made both in plain board and in colors. If the ordinary primary tables are laid off in squares, like kindergarten tables, the profitable use of all materials used by children in designing, will be increased. With the tablets, the kindergarten folding paper is advantageously introduced as material for manual training, also to aid in getting proper notions of the square and its properties, and as means used in dictation and in designing.

With the study of edges, kindergarten sticks, either plain or colored, (teachers can easily dye plain sticks any color desired: in giving color lessons consult some *good* manual), should be used. These afford afterward many pleasing exercises both in imitating objects and in designing symmetrical forms.

After the first use of these kindergarten means, which is properly to aid the children in abstracting ideas of face and line, and when these notions are fixed, the tablets, paper sticks, etc., become themselves independent elements to be used in construction. At this stage, the teacher should give dictation exercises showing *by means of the dictation* the application of the simple laws of designing, as, symmetry or balance, unity, repetition and alternation. This is not done by giving these terms, but by training children to *do* what is told them, being careful to dictate instructions that embody and illustrate these laws. Given simple material, *and the law that controls its use*, with a little suggestive work from the teacher, the child is ready to invent; henceforth the tablets and other means become material not only for drawing exercises, but also for pleasing and truly educational "busy work."

When form study is sufficiently advanced, the outlines of the objects studied are represented by lines: also the forms laid with tablets, sticks, etc., are themselves suitable objects to copy with lines. With the drawing of lines instruction is given in pencil holding, position and movements.

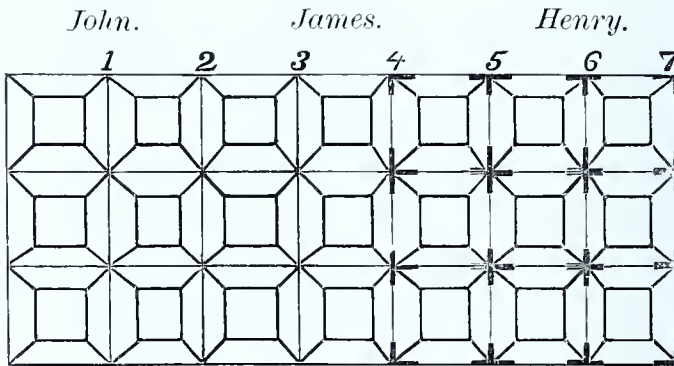
The secret of successful work in drawing is motive in work, grading of instruction to aid the child in mastering form and in expressing resulting ideas, and correct free movement.

In the third year books should be introduced. A careful study of the manuals explaining the best systems of drawing, with determination and some effort on the part of a good teacher of general subjects, will enable her to succeed in drawing.

To encourage designing and develop taste, it is recommended that in all the grades, even in connection with the tablet and stick dictations and designs of the lower grades, good, simple patterns, not over-elaborated, in stamped goods, oil cloth, wall paper and other examples of applied design, be shown the children. When the season is over, very many samples of these things may be had of the dealers for a trifle or for the asking.

To get free movement, also to train in judging space and proportions, frequent board drawing is recommended to test imaging power, memory drawing.

In the blackboard work, a surface covering pattern (that is a good, simple figure of paper-hangings, linoleum or tiling), may be used with good results by arranging to have each child do a portion of the work that completes the whole.



A line at proper height is first drawn on the board by the teacher and spaced. Each child is then given two spaces. In the left of the two spaces given him, each child draws a figure to the teacher's dictation, reproducing it to the right and below. The children decide what this decoration is best adapted to, as tiling, paper-hangings, etc. In the part at the right the effect of a slight change is shown. This form of blackboard work is admirable as "busy-work," as it gives free movement, and a motive to do accurate work. Later, half-tinting, also light washes and lines of color, may be profitably used. The teacher should aim to keep drawing exercises from being too formal, by seeing to it that each drawing exercise expresses thought, and a sort of thought that the child is interested in expressing. Never should drawing degenerate into the making of pretty forms, merely for show purposes. Encourage much drawing of simple things; at first, knives, spoons, fruit, vegetables, doors, and gradually progress to articles of furniture, houses, interior of rooms, and streets.

Pupils, in the early grades, if supplied with water color paints (two or three dollars will supply a room of forty children), can profitably represent in color, leaves, fruit, bunches of berries and other natural objects, as an accompaniment of form study, but this work should not supplant form study, or create a dislike for it. It is well, also, to turn the "Yankee jack knife" to better account by encouraging the carving of

good, simple designs in pine boards. In the upper grades, pupils should draw machinery, apparatus, and fully illustrate the lessons of the course, where such work is useful.

§ IV. WRITING.

In writing, as in other departments of form study, the first ends sought are the fixing in the mind of correct forms with the resulting critical power, and rapid and accurate execution. Right movement should be established at first, as the result of sufficient practice with the body, hand, pen and paper in proper position. Hand gymnastics for muscular training and movement exercises in air, or with dry pen tracings, using the ordinary movement drills, should occupy a part of each writing exercise. Black-board writing cannot be too highly commended for the same purpose. During the writing period, which should not be placed immediately after intermissions when the hand is unsteady, the teacher's time should be wholly devoted to writing.

The final result should be to so fix a habit of correct mechanical movement that the mind may be left at least partially free to attend to other matters, else the after-school manner of writing will continue in total variance with the writing-book hand of the school room. Much writing, under the conditions named, is recommended. The mere imitation of forms, by slowly and painfully *drawing* the letters with stiff finger movements, no matter how well the letters may be formed, or how "pretty" the page may be, cannot give permanently good results. In the stress of business and professional life, even in the advanced work of the schools, when the mind is properly occupied with something besides mere penmanship, the writing degenerates, and the cramped position and limited movements are not only habits difficult to overcome, but they are the chief cause of bad execution.

In the early reading and other exercises which little children are to copy, the forms on the board should be good. At all times, and in all grades, the importance of good board work can not be over stated.

Adopt the best system to be found, and follow the instructions given for the grade. A good manual should afford sufficient instruction in technique.

§ V. READING.

FIRST YEAR.

Teach the names of a few familiar objects, in script, on the black-board. Use them in short sentences with some one of the expressions, *It is, Here is, I see, Is this.* etc. (These and all words expressing relations, and ideas not easily illustrated, should be taught in sentences or phrases; articles with their nouns, etc.

As new words are taught, use them in sentences; and as new introductory phrases are given, review the words already

learned in these new connections, securing repetition and variety.

Select the words for black-board work, in the main, from the chart and First Reader next to follow.

In the first term's work in particular, use conversational exercises, and objects and pictures, to give reality to the use of the words, and so to secure natural tones and inflections, and proper grouping of words; but the teacher should guard against wasting time in such devices. Use them only for a purpose, not for their own sake.

When about 100 words have been learned, at a period varying from six to ten weeks, the change to print may be made; and after a brief use of the chart, the class may take a book.

From the first give daily exercises in separating *spoken* words in their elements *without reference to the written characters*.

The child should recognize the words of his vocabulary when the elements are given by the teacher, and should understand short sentences given so, and should himself analyze simple words easily after from three to six weeks of school. Do not *hasten* phonetic analysis of *written* words. Wait for some sign that the children have begun *unconsciously* to associate some sounds and their letters. Then the word and sentence method may be reinforced by the phonetic method.

Teach not only sounds of single letters, but also common groups of sounds, as *ing*, *in*, *and*, *ake*, etc., whether making complete words or not; and then teach pupils to recognize new words made by adding initial letters, as *band*, *hand*, *land*, *sand*, *stand*, *strand*, *grand*.

Shortly after the class take readers, they may be expected to make out for themselves simple, new words, similar to those already used. Thus knowing *take* and *make*, they should recognize *cake* or *sake*, and may profitably learn at the same time other words rhyming with these. Before the end of the year they should make out most words in a new First Reader.

It is probably better to make out a new word, when possible, *from its analogy to one already known, rather than by the aid of diacritical marks*; but these marks may be used in making out anomalous forms.

Drill also upon the combinations of consonants, *br.*, *cr.*, *bl.*, *pl.*, *ph.*, *wh.*, etc., and see for vowel drill under *Language*. Valuable suggestions to teachers will be found in many recent First Readers.

Read parts of several First Readers during the year, changing from one to another as the vocabularies of the books and resources of the school make desirable and possible. From the first require the children to read the sentence as a whole to themselves before reading it aloud. Do not point to words on the board, or allow children to do so in the books. The children should have the books only during recitation this year, though books that have been completed, or that are not to be used in class, may be used profitably at the seats or at home. Concert reading is full of danger.

Reading should be the chief work, and take most of the time, in this grade.

SECOND YEAR.

Complete the First Reader (it is desirable to use at least five), then read two Second Readers, and "Cats and Dogs," and Scudder's "Book of Fables," or "Seaside and Wayside," or other equivalent matter.

Continue the phonic work. Make sure early in the year that all the letters are known. Drill in pronouncing rapidly and review lists of words in the Readers and on the board, as well as the words of the immediate lesson before reading it. The child should be ready to pronounce any list in his book at sight as rapidly as he can talk distinctly.

Reading should be considered the main work of this year also.

THIRD YEAR.

Read another Second Reader and two Third Readers, with Scudder's Folk Stories, Æsop's Fables or Seaside and Wayside, Part II.

At the close of a recitation the new words at the head of the next lesson should be pronounced by the class. Do not tell or allow the class to tell a child a word that he should be able to make out for himself phonetically. Require him to divide it into syllables and pronounce *at* it.

If the pupil needs other help the teacher may write for him some similar word that he does know, and by gradual modifications, followed by the child in sound, convert it into the new word. A skillful teacher, quick in hitting upon the right word to start with, may add rapidly in this way to a pupil's power of recognizing new words.

But when such means do not present themselves, tell the word without trying to suggest it in ways that will *not* add to the child's power.

Drill in pronouncing lists of words as in the second year.

There should be regular breathing exercises, and drill in articulating troublesome final consonants, in giving smooth vowel tones, and in shifting accent and inflection; but much of this may be done in three or four-minute rest-periods, better than in recitation.

Guard in this and all grades, of course, against bad tones, repetitions, drawling, and kindred evils.

FOURTH YEAR.

Read another and more difficult Third Reader, Hans Andersen's Fairy Tales, The Water Babies (if the teacher herself enjoys the book); Stories from American History, Smith's Primer in Physiology, Kinfolk, Seven Little Sisters, our World No. 1, or Frye's Brooks and Brook Basins; McMurry's Historical Stories.

As the reading in this year represents work in geography,

elementary science and history, as well as literature. three recitations a day are not too much to expect.

In the preceding three grades, the first object is to acquire a vocabulary and the ability to call new words at sight; in this and the following grades, intelligent silent reading is the first object. Pupils should reproduce the lesson in their own language *before* reading aloud, and answer questions designed to make sure that they have caught the details, as well as the outline of the story. Ability to do this is the test of preparation, and each pupil should be held responsible for it, as for the preparation of any other lesson.

At least once a month, in this and following grades, let the pupils read a short story once through to themselves, each having a copy (sets of Readers not previously read, story papers, etc., supply material); and then let the pupils without the books reproduce the story in writing. Notice that this is a distinct exercise from the reproduction of a story read *to* the class. It does furnish good language work, but it is essentially a reading exercise, to give practice in getting the thought fully and accurately *through the eye*. Such exercises make the best "examinations" in reading, but should not be confined to examinations. In this, as in all written exercises that are not examinations, the teacher's place is not at her desk but among the pupils, to question, suggest and criticise. The teacher should be as useful in a written as in an oral recitation.

The recitations do not afford practice enough to make good readers; but if left to themselves, the poorest readers, who most need outside practice, will not get it. The teacher can help such children most, perhaps through the school library; or parents may be influenced to provide home reading.

Do not neglect oral expression. Select short passages each day for special oral drill. Let the whole class learn a good poem occasionally, and practice it carefully for oral rendering. Encourage children to bring short selections from home, or from the library, to read to the class, giving one period a week to that exercise.

FIFTH YEAR.

Fourth reader, second series of Andersen's Fairy Tales, Ruskin's King of the Golden River, Kingsley's Heroes, King's Second Geographical Reader, or Scribner's Geographical Reader.

It is well for a school to own the Longfellow, Whittier and Bryant Leaflets, sorted in sets of twenty or twenty-five, to use for variety in this and the following grades.

Written and oral reproduction, as before.

Pupils should own a good dictionary, preferably the Academic. Teach the use of the International, with the key, and practice phonic analysis.

Take special pains to check and correct the tendencies to mumble, and to read rapidly and unexpressively, that are liable

to grow more marked with the growing self-consciousness of the pupils.

SIXTH YEAR.

Hawthorn's Grandfather's Chair, Burrough's' Birds and Bees, Martineau's Peasant and Prince, Stories from Hawthorne with the Leaflets as before.

Use poems frequently for written reproductions.

If the story is not readily reproduced orally, let the pupils, as parts of their preparation, write a given number of questions for each other to answer. Such questions will need criticism and comment. Children should practice making topical analyses of the lessons, when the selections are suitable, with help from the teacher at first, and with comparison and criticism. In preparing the lesson, also, pupils may paraphrase poems, and recast paragraphs from prose lessons into equivalent expressions. Preparation of this kind is better than to "read the lesson five times."

This exercise last suggested offers opportunity for important drill on shades of meaning in "synonyms," such as *kill*, *murder*, *slay*, *execute*, etc. Teachers should keep lists of such words for reviews, and may profitably *make charts*, in this and the following grades, for such purposes. To illustrate in sentences the distinctions between these words involves the nice choice of other words also.

Cultivate the pictorial imagination, by requiring pupils to see clearly the pictures in words; to represent to themselves the details of descriptions, and even to add other details, for themselves, consistent with those given in the book.

Written expansion of incidents, development of word pictures, and comparison of characters, are essential to good reading work and may be the basis of the "composition" work. In this and the following grades such exercises should occur once a week.

SEVENTH YEAR.

Scott's Lady of the Lake, Tales of a Grandfather, Burroughs' Sharp Eyes, Hawthorne's Tanglewood Tales, Fiske's Washington and His Country, and the Leaflets.

Continue and develop lines of work of preceding three years. Treat of simple rhetorical figures, and simple metres as they occur, and classify them during the year.

EIGHTH YEAR.

Tales of the White Hills, A-Hunting of the Deer, Snow-Bound, Legend of Sleepy Hollow, and the Leaflets.

Continue and further develop work of preceding four years.

Review systematically syllabication, inflection, kinds of emphasis, use of italics, and "phonetic spelling," with a full classification of the sounds of the English language (for which the teacher may consult the Introduction to Webster's International Dictionary).

GENERAL SUGGESTIONS.

The teachers in any of the first three grades should be familiar with the outline for all of the three; and similarly in the grades above, the teacher should consult the suggestions not only for her own grade, but for all the later years from the fourth on.

The reading exercises in the last five years should interest the child in history, in travels, and in nature; but, and this is more important, it should also make him familiar with some good books, and give him a taste for good books. Whether this be done, must depend mainly upon the teacher. Let it be remembered that *acquaintance with such books is too dearly bought at the price of dislike for them.*

It is often advisable in the upper grades, as in the High School, to call these exercises, not reading, but history or mythology, or perhaps better, by the name of the author—the class in Hawthorne, etc.

Oral reading should not be neglected, and the necessary conditions, distinct enunciation, good tones and good position, should be insisted upon in all recitations. If the teacher is a good reader, she may give valuable aid by herself reading selections occasionally to the school. Poetry should be sparingly used in the lower grades. When given at all, a selection should be thoroughly drilled upon.

It may be best often to use other books in addition to those mentioned, or in place of some of them. Those named, besides being adapted to the respective grades, have also the merit of costing, in general, from fifteen to fifty cents only. They will be found with many others in the catalogues of Ginn & Co., Houghton, Mifflin & Co., Heath & Co., Lee & Shepard, the American Book Co., and Effingham Maynard.

§ VI. LANGUAGE.

GENERAL.

The use of language books and specific language exercises often leads to the emphasis of correct form at the expense of thought. Dreary correctness in saying and writing *nothing* does not pay for the time and energy wasted in securing it, neither is the awakening of desultory thought solely for the purpose of training expression, true economy. Language, therefore, should be taught in connection with thought in the organized lines of work—geography, history, reading, etc.

SCHEME FOR THE EMPHASIS OF LANGUAGE IN THE VARIOUS SUBJECTS OF THE COURSE.

GEOGRAPHY.

1. Descriptions of plants, animals, minerals; of atmospheric phenomena; of structure, drainage, etc.; of natural scenery; of people, occupations, cities, etc. The descriptions to follow

observation, or to be reproductions of facts read, or learned in class.

2. Topical recitations demanding close analysis of thought and its presentation in its organic relations.

ARITHMATIC.

1. Invention and statement of problems.
2. Topical recitations in sixth, seventh and eighth grades.

HISTORY.

1. Narration of events.
2. Debates.
3. Personations, sometimes in the form of letters written by supposed persons living at the period studied.
4. Topical recitations demanding analysis of causes, etc.

READING.

(See *Reading Outline*.)

Two other subjects are outlined here—*Word Analysis* (but see Part III., § VI., A, 3, b.) which may profitably occupy the time devoted to spelling, and *Literature*, which may fill the period given to specific language. Letter-writing, composition, and the course of technical grammar given for the seventh and eighth grades may be incorporated into the *Literature* instead of being taken as extraneous work.

General Suggestions as to Language Training in Carrying out the Above Scheme.

Neither written nor oral work should be neglected. At least one carefully written exercise should be required of every pupil daily.

The following stages in written work should be recognized:

1. Ability to express correctly a single thought upon a subject—the *sentence*. The Second Grade should be able to do correct work of this kind. If pupils of higher grades are deficient in this respect, they should be given thorough training before the second step is taken up.

2. Ability to analyze the subject and present several connected thoughts upon it—the *paragraph*. Third and Fourth Grades should do this work well.

3. Ability to analyze the subject, arrange its points in logical order and write paragraphs upon each—the *theme* or *composition*. The last step should not be attempted with any grade until the preceding ones are fairly at command. Incorrect work repeated daily is the worst possible training.

Superintend the writing of language exercises always with younger grades, often with the older ones.

Criticism is of little value unless the work is corrected or improved at the time. It is the business of the teacher to train rather than to find fault. If incidental correction does not eradi-

cate an error, an entire exercise should be devoted to training the pupil in that one direction, "running the goose down" as Thring says. Here the teacher may be assisted by the many language books. Most of them contain valuable exercises for drill upon plurals, possessives, quotations, principal parts of irregular verbs, use of shall, will, etc. The economy of time in taking those exercises only which are needed is manifest.

But few rules for the use of punctuation and capitals should be taught at first. When these are invariably followed in the written work of all the pupils, others may be introduced gradually. The following order is suggestive.

<i>First Grade....</i>	{	Period.	{ At the end of the sentence.
			{ After an abbreviation.
		Interrogation point.	
	{	The Capital.	{ At the beginning of the sentence.
			{ I and O
			{ Name of a particular person or place.
<i>Second Grade...</i>	{	Exclamation point.	
		Comma.	{ After name of person addressed.
			{ In a series of words.
<i>Third Grade....</i>	{	Capitals—Names of particular months and days.	
		Quotation marks.	
		Apostrophe.	
		Capital—every line of poetry.	
		Hyphen.	
		Dash.	
<i>Fourth Grade...</i>	{	Parenthesis.	
		Capitals.	{ Names of the Deity.
			{ Titles of honor and respect
		{ Important words in titles of essays.	
<i>Fifth and Sixth Grades—Review.</i>			
<i>Seventh and Eighth Grades :</i>			

Fifth and Sixth Grades—Review.

Seventh and Eighth Grades:

In connection with technical grammar course, take the following:

Comma ..	{	Setting off non-restrictive clauses.
		After phrases and clauses out of natural order.
		Setting off parenthetical expressions.
		Setting off appositive phrases.
Semi-colon.		
Colon.		

A few rules for spelling should be taught in connection with the word analysis. (*See paragraphs 7, 11 and 13, pages LXV and LXVI, Webster's Unabridged Dictionary.*)

Pupils may be drilled upon homonyms used in sentences, *provided both homonyms are in their vocabulary.* Graded lists of these may be found in Reed's Word Lessons and Bright's Graded Instruction in English.

SPELLING.

The use, pronunciation, and spelling of words should be taught together. Time may be economized by teaching words classified on the basis of common sound or common derivation. Careful practice of the phonic elements in the order presented in second, third and fourth grades, in connection with help as to the position of the speech organs, will secure improved pronunciation. A review of this work is recommended for each

of the higher grades. (*See Webster's Unabridged Dictionary, pages XL to XLVIII, or International Dictionary, pages LIII to LIX*).

Every teacher should own a good work on Word Analysis. In the lists of roots, the Latin or Greek word is given for the convenience of the teacher. The pupil should learn merely the root with its signification. All derivatives not in the pupil's vocabulary, or not needed soon, should be omitted.

On the presentation of the prefix, suffix, or root, the class may give many derivatives. If not given by the class, they may be presented by the teacher in *sentences*. Attention should be called to known prefixes, suffixes, or roots, whenever new terms are presented to the class in any lesson.

FIRST GRADE.

The reading in this grade will guide the teacher in present ing rhymed lists for phonic and written spelling.

SECOND GRADE.

Practice upon the vowel sounds as indicated in the diagrams or tables. Pupils will thus become familiar with diacritical marks. If these marks are used thereafter in new terms which the pupil is to discover for himself, the marking of known words will be unnecessary. Select and classify words from reading and other lessons, as suggested by the headings below the diagram.

e		a		oo
---	--	---	--	----

e ea ee
scene leave freeze.
&c. &c. &c.

a au aw
talk sauce crawl.
&c. &c. &c.

oo o u ou ew
smooth lose sure group grew.

e	a	â	ä	û	ä	o	oo
---	---	---	---	---	---	---	----

â âi ây
vase praise stray.

â âi eâ
scare chair bear.

ä au
psalm laugh.

û ô ou
urge world journey
Long Vowels. Short Vowels.

ō ōa ōu ōw
sword hoarse source know.

e.....ï
ä.....ë
â.....ä
ä.....
û.....ü
ä.....ö
ō.....
oo.....oo

Compound Vowels.
û—ï+ō
î—ä+ë
ou—ä oo
oi—ä î

ī	ē . . . ēa	ā	ū	ō	ōō . . .	ū ou	ō		
bridge &c.	wedge &c.	death &c.	match &c.	crumb &c.	not &c.	foot &c.	pull &c.	should &c.	wolf &c.
ū	ī ŷ		ou ow		oi oy				
cube	twice	type	cloud	crowd	voice	toy.			

Prefixes, un, in or im, dis, mis, and re.

Suffixes,—er and est (more and most)

er, ar, and or (one who)

ing, ed, es, and s.

In the primary work in word analysis, use simple English derivatives, so that pupils may discover the meaning of prefixes and suffixes for themselves, as: *undō, insane, imperfect*, etc. Suggestions may be found in Miss Badlam's First Reader, and in Reed's Word Lessons.

THIRD GRADE.

Review table of Long Vowels, Short Vowels, and Compound Vowels from Second Grade. Take the *intermediate vowels* ā and ē, and make classified lists of words containing additional equivalents of the other vowels.

ā is intermediate between ā and â.

ē is intermediate between ē and ū.

ā	ē	ī	ŷ	ēa					
ask	mercy	mirth	myrrh	earnest.					
ē	ēi	ī	ēy	ēo	æ	ūay			
either	valise	key	people	Cæsar	quay.				
ī	ŷ	ui	ee	e	u	īe	o		
lynx	build	been	pretty	busy	sieve	women.			
ā	ei	ey	eā	āu	āy	āo			
skein	they	great	gauge	aye	gaol.				
ē	ai	ēo	a	uē	ēi	īē	u	a	
again	leopard	many	guess	heifer	friend	bury	says.		
ā	ēi	ē	āy	ā	eā	uā			
heir	there	prayer	hearth	guard.					
ū	ō	ōū	ōo	ōe	ā	ou	ō	eō	oa
doth	touch	blood	does	thought	thorn	George	broad		
ō	a	ōw		ō	ōe	oo	eau	ew	
watch	knowledge	foe	floor	beau	sew				
		ōō	ui						
			suit.						

Review prefixes and suffixes of Second Grade.

Suffixes.
fold like
ness en
teen ous
ty ish
able, ible, or ble

Prefixes.
out
over
under

FOURTH GRADE.

Review prefixes and suffixes of Second and Third Grades.

Suffixes.				Prefixes.																																																							
ard	ward			fore																																																							
let	wise			with																																																							
dom	th			up																																																							
ship	ess			be																																																							
an				en																																																							
some																																																											
Subvocals.		Aspirates.		Compounds																																																							
m.....	b.....		p.....	j=d	zh																																																						
w.....			hw.....	ch=t	ch																																																						
th.....			th.....	x=k	s or g																																																						
z.....			s.....																																																								
n.....	d.....		t.....																																																								
zh.....			sh.....																																																								
l.....																																																											
r.....																																																											
y.....																																																											
g.....			k.....																																																								
ng.....			nk.....																																																								
<table> <tr> <td>hw what &c.</td> <td>f staff &c.</td> <td>ph phantom &c.</td> <td>gh cough &c.</td> <td>th there</td> <td>th thick</td> </tr> <tr> <td>z buzz</td> <td>s does</td> <td>c sacrifice</td> <td>s miss</td> <td>ç race</td> <td></td> </tr> <tr> <td>zh azure</td> <td>si fusion</td> <td>s pleasure</td> <td>r farm</td> <td>r final burr</td> <td>ng sing</td> </tr> <tr> <td>sh shall</td> <td>ch machine</td> <td>ti nation</td> <td>s sugar</td> <td>si Asia.</td> <td>j jar</td> </tr> <tr> <td>k Kate</td> <td>ch cat</td> <td>ch character</td> <td>que antique</td> <td></td> <td>g large</td> </tr> <tr> <td>x (ks) extend</td> <td>x (gz) exile</td> <td>x (ksh) anxious</td> <td>x initial Xebec</td> <td>(z) vane</td> <td>ph Stephen</td> </tr> <tr> <td>g goat</td> <td>gh gherkin</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Silent s aisle</td> <td>Silent t fasten</td> <td>Silent th asthma</td> <td>Silent k knee</td> <td>Silent g gnaw</td> <td>Silent w wring</td> </tr> <tr> <td>island</td> <td></td> <td></td> <td></td> <td></td> <td>who</td> </tr> </table>						hw what &c.	f staff &c.	ph phantom &c.	gh cough &c.	th there	th thick	z buzz	s does	c sacrifice	s miss	ç race		zh azure	si fusion	s pleasure	r farm	r final burr	ng sing	sh shall	ch machine	ti nation	s sugar	si Asia.	j jar	k Kate	ch cat	ch character	que antique		g large	x (ks) extend	x (gz) exile	x (ksh) anxious	x initial Xebec	(z) vane	ph Stephen	g goat	gh gherkin					Silent s aisle	Silent t fasten	Silent th asthma	Silent k knee	Silent g gnaw	Silent w wring	island					who
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island					who																																																						

FIFTH GRADE.

After the following Latin prefixes and suffixes, the pupils may take up roots and add to their lists of prefixes and suffixes gradually as needed, in this and the following grades. For meanings, see any good work on word analysis.

Latin Prefixes.		Latin Suffixes.	
ad*	ex	ac	tude
circum	ab or abs	acy	ent
con*	de	ate	ion
pre	per*	ile or ine	
sub	contra	ist	ize
trans	post	ism	
in*	pro	ive	

*Explain phonetic changes, as *ad* to *at*, *ac*, etc.

Latin Root Words.

- | | | |
|--------------------------------|---------------|----------------|
| 1. agere | 13. dividere* | 26. migrare* |
| 2. cor | 14. fateri | 27. movere* |
| 3. pars | 15. fendere* | 28. navis |
| 4. barbarus | 16. flamma | 29. pendere* |
| 5. primus | 17. forma | 30. portare* |
| 6. centum | 18. pes | 31. servare* |
| 7. decem | 19. fortis | 32. spirare* |
| 8. circus | 20. frangere* | 33. tendere* |
| 9. clamare | 21. lux | 34. trahere* |
| 10. cura | 22. magnus | 35. triburare* |
| 11. dens | 23. mare | 36. volvere |
| 12. dies (French <i>jour</i>) | 24. terra | 37. multus |
| | 25. medius. | |

SIXTH GRADE.

Review prefixes of Fifth Grade.

extra	super	juxta
non	ultra	intro
praeter	vice	subter
semi	retro	omnis

Root Words.

Review roots marked * in Fifth Grade.

- | | | |
|---------------|-------------------|------------------------|
| 1. annus | 19. clinare | 37. opus |
| 2. caput | 20. deus, divinus | 38. pandere* |
| 3. civis | 21. verus, verax | 39. parare* |
| 4. corpus | 22. dicere* | 40. ponere* |
| 5. finis | 23. via | 41. posse* |
| 6. rumpere* | 24. ducere* | 42. scribere* |
| 7. tempus | 25. plex | 43. verus |
| 8. aqua | 26. duo | 44. secare* |
| 9. arbor | 27. manus | 45. sedere* |
| 10. homo | 28. ars | 46. sequi* |
| 11. mater | 29. facere* | 47. specere (spicere*) |
| 12. pater | 30. lex | 48. struere* |
| 13. frater | 31. ferre* | 49. tenere* |
| 14. rex | 32. jacere* | 50. venire* |
| 15. fari | 33. jungere* | 51. vertere* |
| 16. caedere* | 34. legere* | 52. videre* |
| 17. cedere* | 35. loqui* | |
| 18. claudere* | 36. mittere* | |

SEVENTH GRADE.

Review roots marked * in Fifth and Sixth Grades.

Root Words.

- | | | |
|---------------------|---------------|-----------------|
| 1. audire* | 21. felix | 41. munus |
| 2. credere* | 22. fidere | 42. nectere* |
| 3. currere* | 23. flos | 43. novus |
| 4. fluere* | 24. folium | 44. numerus |
| 5. grex | 25. fumus | 45. pati* |
| 6. lapis | 26. fundere* | 46. pellere* |
| 7. litera | 27. flectere* | 47. prehendere* |
| 8. mors | 28. gradi* | 48. premere* |
| 9. aequus, aequalis | 29. gratus | 49. princeps |
| 10. vale, valere | 30. gravis | 50. putare* |
| 11. asper | 31. habere* | 51. rivus |
| 12. bis | 32. haerere* | 52. scandere* |
| 13. bonus, bene | 33. jurare* | 53. sistere* |
| 14. malus, male | 34. jus | 54. solvere* |
| 15. cadere | 35. mens | 55. spondere* |

- | | | |
|--------------|--------------|--------------|
| 16. cavis | 36. mergere* | 56. stare* |
| 17. citare* | 37. miles | 57. trudere* |
| 18. crux | 38. minere | 58. vincere* |
| 19. figere | 39. minuere | 59. vocare* |
| 20. crescere | 40. mons | |

Greek Root Words.

- | | | |
|-------------|-----------|----------|
| 1. graphein | 3. ode | 5. polis |
| 2. hodos | 4. pathos | |

Care should be taken to teach the correct use of prepositions with the verbs.

EIGHTH GRADE.

Root Words.

- | | | |
|--------------------|----------------|----------------|
| 1. amare, amicus | 20. locus | 42. plectere* |
| 2. animus, anima | 21. ludere* | 43. probare* |
| 3. docere* | 22. merces | 44. pungere* |
| 4. dominus | 23. minister | 45. rapere |
| 5. ire* | 24. mirari* | 46. regere |
| 6. ordo | 25. miscere | 47. rogare* |
| 7. avis, augur | 26. miser | 48. sacer |
| auspex | 27. moderari | 49. salus |
| 8. canere (French | 28. monere* | 50. sentire* |
| chanter) | 29. monstrare* | 51. signum |
| 9. centrum | 30. mordere | 52. similis |
| 10. fugere* | 31. mos | 53. stringere* |
| 11. petere* | 32. mutare | 54. sumere* |
| 12. cernere* | 33. nasci | 55. tangere* |
| 13. cingere* | 34. negare | 56. testis |
| 14. dare* | 35. neuter | 57. tueri* |
| 15. esse, en* | 36. nocere | 58. unda |
| 16. fanum | 37. nomen | 59. uti* |
| 17. gerere | 38. noscere* | 60. vadere* |
| 18. gignere, gens, | 39. par | 61. verbum |
| genus | 40. nunciare* | 62. vulgus |
| 19. levare | 41. nutrire | 63. liber |

Greek Root Words.

- | | | |
|----------------------------|-------------|-------------------|
| 1. aër | 6. monos | 11. taktos, taxis |
| 2. agon | 7. pan | 12. theos |
| 3. agein (<i>agogue</i>) | 8. philos | 13. chronos |
| 4. logos | 9. phos | 14. zoon |
| 5. meter | 10. scopein | 15. astron. |

Greek Prefixes.

- | | | |
|----------|----------|-----------|
| 1. amphi | 6. hemi | 11. syn |
| 2. ana | 7. hyper | 12. hexa |
| 3. anti | 8. hypo | 13. hepta |
| 4. dia | 9. peri | 14. mono |
| 5. dis | 10. pro | 15. poly |

LITERATURE.

GENERAL SUGGESTIONS.

Usually an entire poem or prose work should be studied. If a portion of an entire work is selected, either tell the story of the whole to the class, or have them read it by themselves, before the study of the part is taken up. Beware of obscuring the main idea by microscopic work upon details. The meaning of terms and allusions should be investigated only so far as to

throw light on the meaning of the author. In "Birds of Killingworth," for example, the direction, "Find out all you can about Herod and Plato" and questions upon the anatomy of the various birds mentioned and like details, are sure means of destroying all appreciation of the poem.

In each study the pupil should be led to see the main purpose of the author, and to state what each paragraph or stanza contributes to that purpose.

In narrative, the chief attention should be paid to the place, time, characters, and succession of events. Explanations of the figures of speech employed, analysis of the thought of the sentence separating into phrases, rearranging the elements of the sentence, substitution of synonyms or equivalent phrases giving reasons for the author's choice, and expanding picturesque words into paragraphs, are all valuable exercises. Reproductions both oral and written should be frequent with every grade. Quotations may be selected by the class and memorized.

The name of the author should be known, but rarely should time be spent in teaching the date of his birth, details of his life, or names of works unknown to the class.

The following list of studies for different grades is merely suggestive. The length of the list should not be taken as the measure of what the grade ought to accomplish, as it has purposely been made copious to enable teachers to select. The best work will be done with the selections which the teacher most enjoys.

FIRST GRADE.

Stories told to class to be re- produced orally.	}	Wonder Book.
		Tanglewood Tales.
Stories read to class to be re- produced orally.	{	Scudder's Child's Book.
		Seven Little Sisters.
		Each and All.
		Pied Piper of Hamelin Town.
		The Jackdaw of Rheims.
		The Crow's Children.

Children read parts of Mother Goose and of the following poems which they learn to repeat:

The Fly, Theo. Tilton. The Baby, Geo. MacDonald; Barbara Freitchie, Whittier; Sweet and Low, Tennyson; The First Snowfall, Lowell.

The last might follow a lesson upon snow.

Seven Times One, Jean Ingelow; Jack-in-the-Pulpit, Whittier.

Flowers are necessary to illustrate the last two poems. The "Cuckoo-pint" in "Seven Times One" is the English "Jack-in-the-Pulpit," Jack being the "crimson clapper" and his pulpit the "green gold bell." The "brave marsh marybuds" belong to our common cowslip.

SECOND GRADE.

Some work of First Grade is purposely repeated. A deeper impression can now be made, and more written work given with each story. Pupils may now read and copy poems from the blackboard.

Stories read to class to be orally reproduced.	{	Wonder Book.	Hawthorne.
	{	Tanglewood Tales.	Hawthorne.
	{	Child Life in Poetry,	Whittier.
	{	Child Life in Prose,	Whittier.
	{	Letters to a Cat,	Helen Jackson.

The last may serve as an introduction to letter writing.

Poems to be studied and recited:

{	Hiawatha's Childhood,	Longfellow.
	Little Gustava,	Celia Thaxter.
	The Grasshopper and the Cricket,	Leigh Hunt.
	The Bird and the Ship,	Longfellow.
	Little Sorrow,	Marian Douglas.
{	The Barefoot Boy,	Whittier.

Parts of Robinson Crusoe in words of one syllable may be read and the rest told.

THIRD GRADE.

For comparative study.	{	Story of King Midas.
	{	Bishop Hatto and the Mouse Tower.
	{	Ruskin's King of the Golden River.
	{	Story of King Solomon.

Told to the Class—Stories of King Arthur.

Read to the class.	{	Water Babies,	Kingsley.
	{	Romance of the Swan's Nest,	Mrs. Browning.
	{	The Height of the Ridiculous,	Holmes.
For study and recitation.	{	The Children's Hour,	Longfellow.
	{	The Legend of the Crossbill,	Longfellow.
	{	Hiawatha's Sailing and Fishing,	Longfellow.
	{	The Mountain and the Squirrel,	Emerson.
	{	The Village Blacksmith,	Longfellow.
	{	The Starlings,	Chas. Kingsley.
	{	A Farewell,	Chas. Kingsley.
	{	A Mountain Boy and I,	Translated from Uhland.
	{	Cataract of Lodore,	Southey.

Class may read the last and study rhymes.

FOURTH GRADE.

Read to the class.	{	Birds and Bees,	Borroughs.
	{	Snow Image and Daffydowndilly,	Hawthorne.
	{	The Angel's Story,	Adelaide Proctor.
Read by the class.	{	Book of Tales.	
	{	The Discoverer of the North Cape,	Longfellow.
	{	The One-Hoss Shay,	Holmes.
	{	John Gilpin's Ride.	Cowper.
To be studied and memorized.	{	The Palm Tree,	Whittier.
	{	The Stormy Petre	Barry Cornwall.
	{	Robert of Lincoln,	Bryant.
	{	The Storm,	Adelaide Proctor.
	{	The Wreck of the Hesperus,	Longfellow.
	{	The Better Land,	Mrs. Hemans.
	{	The Night Bird,	Chas. Kingsley.

FIFTH GRADE.

Read to the class or by the class.	{	Church's Stories of the Old World.	Lamb.
	{	Adventures of Ulysses,	
	{	Knickerbocker's History of New York.	
	{	Holmes's Grandmother's Story of Bunker Hill.	

Read to the class or by the class.	Paul Revere's Ride,	Longfellow.
	Rip Van Winkle,	Irving.
	Essay on Roast Pig,	Chas. Lamb.
	Great Stone Face,	Hawthorne.
To be studied and memorized.	The September Gale,	Holmes.
	Incident of the French Camp,	Browning.
	The Settler's Cabin,	Phoebe Carey.
	The Battle of Blenheim,	Southey.
	Landing of the Pilgrim Fathers,	Mrs. Hemans.
	The Barefoot Boy,	Whittier.
	Hymn of the Vaudois Mountaineers	Mrs. Hemans.
	The Skeleton in Armor,	Longfellow.
	The Emperor's Bird's Nest,	Longfellow.
	The Leap of Roushan Beg,	Longfellow.

SIXTH GRADE.

For Study.	Lamb's Tales from Shakespere.	
	Boy's and Girl's Plutarch.	
	Early Legion of Faust, from Zigzags.	
	Herve Riel,	Browning.
	Skipper Ireson's Ride.	Whittier.
	Enoch Arden,	Tennyson.
For Reading.	The Courtship of Miles Standish,	Longfellow.
	The Slave's Dream,	Longfellow.
	Story of Griselda.	
	Madam How and Lady Why,	Chas Kingsley.
	The Stethoscope Song,	Holmes.
	Christmas Carol,	Dickens.
	Story of Siegfried.	Baldwin (See Zigzags).
	Story of the Golden Age,	Baldwin.
	Uncle Tom's Cabin,	Mrs. Stowe.
	My Summer in a Garden,	Warner.
For memorizing.	Hans Brinker,	M. M. Dodge.
	The Proud Miss McBride,	J G. Saxe.
	The Legends of Province House from Mosses of the Old Manse,	Hawthorne.
	Peter Goldthwaite's Treasure,	From Twice-Told- Tales.
	The Threefold Destiny,	
	Endicott and the Red Cross,	
Compare groups of selections.	To a Mouse,	Burns.
	St. Simeon Stylites,	Tennyson.
	Legend of Bregenz,	Adelaide Proctor.
	For 'a That and 'a That,	Burns.
	The Sands o' Dee,	Chas. Kingsley.
	The Three Fishers,	Chas. Kingsley.
	The High Tide on the Coast of Lin- colnshire,	Jean Ingelow.
	The Last Leaf,	Holmes.
	Chapter on the Valley of the Loire in "Outre Mer,"	Longfellow.
	Horatius at the Bridge, Account of Horatius in "Book of Golden Deeds."	Macaulay. Miss Yonge.

SEVENTH GRADE.

Study.	{ Rivermouth Rock,	Whittier.
	{ Vicar of Wakefield,	Goldsmith.
	{ The Erlking,	Goethe.
	{ The Diver,	Schiller.
	{ The Cotter's Saturday Night,	Burns.
Compare.	{ Birds of Killingworth,	Longfellow.
	{ The Forsaken Merman,	M. Arnold.
	{ Sandalphon,	Longfellow.
	{ Song of the Bell,	Schiller.
	{ Death of the Flowers,	Bryant.
Compare.	{ Chorus of Flowers,	Leigh Hunt.
	{ To a Mountain Daisy,	Burns.
	{ Forest Hymn,	Bryant.
	{ Deeds of the English in the Mutiny, from "Golden Deeds," by	Miss Yonge.
	{ The Demon of Cawnpore,	Jules Verne.
READ	{ Sepoy Mutiny from "Boy Travellers in India."	
	{ The Siege of Lucknow.	
	{ The Gray Champion,	} From Twice-Told Tales (First Series.)
	{ The Great Carbuncle,	
	{ David Swan,	
	{ Little Annie's Rambles,	
	{ Stories of King Arthur, (told).	
	{ Sidney Lanier's Boy's King Arthur.	
	{ Forest Outlaws.	
	{ Boy's Froissart,	Sidney Lanier.
LEARN	{ Songs of Robin Hood,	Leigh Hunt.
	{ Fresh Fields,	John Burroughs.
	{ Sir Roger de Coverley,	Addison.
	{ Story of Roland,	Baldwin.
	{ My Garden Acquaintance, from "Study Windows,"	Lowell.
	{ Marjorie Daw and other Stories,	T. B. Aldrich.
	{ The Old Man Dreams,	Holmes.
	{ The Singers,	Longfellow.
	{ The Castle by the Sea, translated by	Longfellow.
	{ Lady Clare,	Tennyson.
	{ Among the Rocks,	Browning.
	{ "God Moves in a Mysterious Way,"	Cowper.
	{ "My Mind to Me a Kingdom Is,"	Sir E. Dwyer.
	{ The Builders,	Longfellow.
	{ Round by Reund,	Holland.

EIGHTH GRADE.

{ Ichabod,	Whittier.
{ The Lost Leader,	Browning.
{ Inchcape Rock,	Southey.
{ The Ancient Mariner,	Coleridge.
{ Toilers by the Sea,	V. Hugo
{ The Lay of the Last Minstrel,	Scott.
{ Vision of Sir Launfal,	Lowell.
{ Battle of Ivry,	Macaulay.
{ Hymn of Nativity,	Milton.
{ Pain is Dead,	Mrs. Browning.
{ Snow Bound,	Whittier.
{ Snowflakes,	Longfellow.
{ Snowstorm,	Emerson.
{ First Snowfall,	Lowell.
{ Des. of Winter in Hyperion, Book I, Chapter VII.	

From Hyperion	{	The Christ of Andernach.	
		Heidelberg and the Baron, Chapter VI, Book I.	
		Spring, Chapter I, Book II.	
	{	Summer Time, Book III, Chapter II.	
		The Sentinel at Pompeii, from Miss	
	{	Yonge's Book of Golden Deeds.	
		Last days of Pompeii,	Bulwer.
	{	Description of the War-Horse,	Job.
		How they brought the Good News	
	{	from Ghent to Aix,	Browning.
		The Blood Horse,	Barry Cornwall.
	{	The Leap of Roushan Beg,	Longfellow.
		John Brant,	Theodore Win-
	{		throp.
		My Psalm,	Whittier.
	{	Psalm of Life,	Longfellow.
		Thanatopsis,	Bryant.
	{	The Skylark,	Shelley.
		Contentment,	Holmes.
	{	The Lady of Shalott,	Tennyson.
		The Chambered Nautilus,	Holmes.
	{	Sir Galahad,	Tennyson.
		Lady Clara Vere de Vere,	Tennyson.
	{	The Golden Year,	Tennyson.
		Incompleteness,	Adelaide Proctor.
	{	Alhambra,	Irving.
		Rab and his Friends,	Dr. Brown.
	{	From Ponkapog to Pesth.	T. B. Aldrich.
		Tale of Two Cities,	Dickens.
	{	Back Log Studies,	Warner
		Westward Ho,	Chas. Kingsley.
	{	Prue and I,	G. W. Curtis.
		Ninety-Three,	V. Hugo.
	{	Talisman,	Sir Walter Scott.
		Ivanhoe,	Sir Walter Scott.

OUTLINE OF TECHNICAL GRAMMAR.

EIGHTH GRADE.

Technical terms used here are found in Reed & Kellogg's Higher English, or in Whitney's Essentials of English Grammar.

I. Kinds of sentences according to meaning, declarative, interrogative, imperative. Each of these may be exclamatory: the interjection.

II. Separation of the sentence into its complex subject, complex predicate and copula.

III. Simple subject, simple predicate and their modifiers noted.

IV. Noun, pronoun and verb distinguished.

V. Adjectives and adverbial modifiers.

VI. Word, clause and phrase modifiers.

VII. Analysis of the prepositional phrase into the preposition, principal word, or object of the preposition, with its modifiers.

VIII. Compound elements: compound subject and predicate and series of words, phrases and clauses, leading to the compound sentence.

IX. Study of predicate nouns and predicate adjectives: transitive verbs with their objects; active and passive voice of transitive verbs.

X. Explanatory modifiers (appositives).

XI. Possessive modifiers.

This outline embraces only eleven main points, one of which may be taken up every two or three weeks during the year. The intermediate time may be spent on the literature lessons, in which the technical points known should be reviewed and applied.

Illustration:

After Lesson X, pupils may select transitive verbs and change the voice, rewriting paragraphs or stanzas. The following is such a paraphrase of a stanza of "The Skeleton in Armor:"

While the brown ale *was quaffed* (by him), loud then the champion laughed, and as the sea foam *is wafted* brightly by the sea-gusts, so out of those lips unshorn, the foam *was* lightly *blown* from the deep drinking-horn.

EIGHTH GRADE.

Review outline of Seventh Grade; notice suggestions for reviewing this work in the literary selections. Not more than one lesson a week in technical grammar is needed, if the work is applied as suggested.

I. Adjective clause—restrictive and non-restrictive.

II. Adverbial clause.

III. Substantive clauses.

IV. Complex and compound sentences; co-ordinate and subordinate conjunctions.

V. Infinitive and participle.

VI. Classes of nouns and the modification of number and case.

Uses of the infinitive.

New uses: nouns and pronouns as indirect objects;
nouns as adverbial modifiers.

VII. Classes of pronouns and modifications of person, number, gender, and case.

VIII. Classes of adjectives and modification of comparison.
Uses of the participle.

IX. Adverbs with modification of comparison.

X. Classes and modifications of the Verb. First, the inflection of the verb with no auxiliaries used; next, inflection of auxiliaries; lastly, analysis of verb phrases, with a study of how to form future tenses, perfect tenses, progressive form, potential mode, passive voice, and emphatic form.

§ VII. ARITHMETIC.

FIRST YEAR.

Teach numbers from one to ten inclusive. As each new number is given, its composition should be taught. While each

new number, and the component parts, should be first taught objectively, the use of objects should not be carried too far. Objects as needed should be rightly and forcibly used to show some fact or quantity or relation, but after this end is reached, the objects should be removed *in order that the mind may construe those facts.*

In teaching the composition of a number; *e. g.* of 5, teach what is new and peculiar to the five. The children may illustrate five as 1 1 1 1 1, llll, llll 1, and ll lll; to give two, two and one as parts of five is not a drill on five, but on four (which should already be known) with one added. With objective illustrations as given above, the children should use appropriate statements as: for 1 1 1 1 1, "I bought 5 slate pencils costing 1c each." &c.; for llll, "I bought a yard of ribbon costing 5c.," &c.; for others, "I bought an orange for 4c. and an apple for 1 c.," or "I had 5c. and bought an orange for 4c., and received 1c. change," &c.

When the children use figures in written addition, the problems should usually be arranged in vertical series, as indicated in the addition of 2 to 2, 3 and 4 below:

$$\begin{array}{r}
 2 \\
 2 \\
 \hline
 \end{array}
 \qquad
 \begin{array}{r}
 4 \\
 2 \\
 \hline
 \end{array}
 \qquad
 \begin{array}{r}
 2 \\
 3 \\
 \hline
 \end{array}
 \qquad
 \begin{array}{r}
 2 \\
 2 \\
 \hline
 \end{array}
 \qquad
 \begin{array}{r}
 2 \\
 4 \\
 \hline
 \end{array}
 \qquad
 \begin{array}{r}
 4 \\
 2 \\
 \hline
 \end{array}
 \qquad
 \begin{array}{r}
 3 \\
 2 \\
 \hline
 \end{array}$$

The object now is so to associate the sum with its parts, that when the parts, as 3 and 4, are seen, the sum 7 may be instantly present in the mind of the pupils.

Teach principle of grouping by tens. Apply numbers previously learned to groups of ten. Combine tens and units, using the objects arranged decimally; *reading the numbers included between 1 and 100 from the object groups.* Groups of hundred may be taught as was the group of ten, and combined with preceding numbers.

SECOND YEAR.

Review and develop the work of the preceding year. Use *object groups of hundreds, tens and ones.* Give practice in naming the number which tell the numbers of the object groups, as the teacher rapidly places these object groups; or, as the teacher names the number (*e. g.* 4 hundred, 6 tens, 7 ones), the children should place the object groups called for. The children are also to tell the values of tens and hundreds in lower orders of units. This work should afterward be reviewed without the objects. Practice in rapid writing and reading. The Roman characters are better taught in connection with their uses on the clock and in numbering lessons and chapters, than as formal arithmetical exercises.

Addition. Two forms of skill should be distinctly recognized by every teacher of arithmetic as soon as problems are used; one, the intelligence and insight required in the proper interpretation of problems, in order that the habit of seeing the conditions of the question as antecedent to "ciphering" may be formed; the other, quickness and accuracy in the funda-

mental operations. Below are shown the possible combinations in addition:

6	6	6	6	6	6	6	6	6
6	8	7	9	5	4	3	2	1
8	8	8	8	8	8	8	8	8
6	8	7	9	5	4	3	2	1
7	7	7	9	5	4	3	2	1
6	8	7	9	5	4	3	2	1
9	9	9	9	9	9	9	9	9
6	8	7	9	5	4	3	2	1
5	5	5	5	5	5	5	5	5
6	8	7	9	5	4	3	2	1
4	4	4	4	4	4	4	4	4
6	8	7	9	5	4	3	2	1
3	3	3	3	3	3	3	3	3
6	8	7	9	5	4	3	2	1
2	2	2	2	2	2	2	2	2
6	8	7	9	5	4	3	2	1
1	1	1	1	1	1	1	1	1
6	8	7	9	5	4	3	2	1

As $\frac{1}{2}$ in the second line does not form an essentially different combination from $\frac{1}{2}$ in the first line, it is crossed out below; as are others that are repetitions of some combination that has occurred before. It will be seen that forty-five different combinations are left. These must be perfectly known before there can be expert addition. The form given above is not to be used as a *table*; it is designed simply to show exactly how many and what facts the teacher of addition is to recognize. Perfect memory of these forty-five results gives the power of lightning calculation. The pupils are to learn to read these at sight as words are read.

In teaching addition, because *addition as a process* is to be emphasized, illustrate with objects such of the forty-five facts of addition as form the matter of the day's lesson, and then express the work with figures as : $\frac{3}{3} \frac{3}{4} \frac{5}{3}$. Apply to other things, and to other groups, as 3 five-cent pieces and 3 five-cent pieces; 3 ten dollar bills and 3 ten dollar bills; 3 hundred men and 3 hundred men, etc. Give enough brisk, interesting varied work to make the children see that any three and three of the same kind are six, and to feel that this is a highly interesting and important fact. Similarly teach the addition of 3 and 4, and 3 and 5. The children are now supposed to know these facts so far as they can get help from objective illustrations; the remaining work is drill in teaching them to recognize the combinations at sight.

Sight drill exercises.—Teacher dictates and children write on their slates, as she writes on the board, these exercises:

3	3	4	3	5	3	3	3	4	5	3	3	3	4	5	3	5	4
3	5	3	3	3	4	3	5	3	3	4	3	5	3	3	4	3	3

after which children *rapidly* write the results. Correct the work. Re-write rapidly. After a few minutes of sharp drill, combine the numbers thus, $\frac{3}{4} \frac{5}{3}$, $\frac{5}{3} \frac{3}{4}$, $\frac{3}{5} \frac{5}{3}$, etc., and require rapid writing of the results at sight.

These exercises will suggest others. The *sight* drill should, exceed in amount the oral drill. With this drill give also slate problems, as, "A man paid \$353 for a lot, and built a barn upon it which cost \$435; what was the cost of the property?" Require a statement of *what is given* in the problem, *what is to be found*, and of the operation required. Quick interpretation of these concrete problems is a matter to which the teacher should give constant attention. If interesting questions of a sort that the children can understand are given, the exercise is as delightful to the children as it is profitable. Numerous applications to lengths, surfaces, measures, &c., will be suggested to any thoughtful teacher.

All statements, definitions and signs that are essential are properly taught and emphasized as they are needed.

In illustrating such combinations as $\frac{5}{10}$ 11111 or $\frac{5}{12}$ 111111 there is a regrouping of the things, which is simply expressed by the numbers. In the first example we have a bundle of ten, which is expressed as ten; in the second a ten and two which is expressed in the proper way. The use of the term "carrying" is unnecessary.

[It is not assumed that addition can be finished in the Second Grade, though it may be well advanced there. None of the work as indicated is hard for children of six or seven. With this work the children should have oral problems involving simple forms of subtraction, multiplication and division in the second year.]

THIRD YEAR.

Addition and Subtraction. See suggestions for Addition in work of the previous year. In Subtraction the number of different combinations is ninety. The children should understand, with perfect clearness, each new fact presented, before the sight drill work. Take exercises in concrete problems like those previously suggested to give the power of interpreting problems. When addition and subtraction are completed, compare the operations and combine them in concrete work. Using concrete examples, rapid statement of the essentials of the question is advised; often, however, it is well to require such statement in writing, as follows:

Question. "I had \$745, out of which I paid to Mr. Marks for rent \$324, and to Mr. Stone for groceries \$72; how much was left?"

Statement of question.	} Prob. 1.	{ Given	{ 1. Sum paid for rent, \$324.
			{ 2. Sum paid for groceries, \$72. To find their amount, add.
	} Prob. 2.	{ Given	{ 1. An amount of money, \$745.
			{ 2. The sum of \$324 and \$72. To find their difference, subtract.

Or later indicate the work thus: $\$745 - (\$324 + \$72)$.

Simple oral work in multiplication or division, if desired.

Review of Notation and Numeration, with new orders added.

FOURTH YEAR.

Multiplication and Division. Note suggestions in work of Second and Third years that apply with equal force here. If

judiciously used it is well to introduce books here; they may also be advantageously used *sometimes* in the third year.

Suggested Order in Multiplication. I. Multiplier units. Here fix the results of the multiplication tables. When necessary, illustrate the work at first objectively.

II. Multiplier tens, then tens and units. Children learn to know the new orders that result from taking tens as a multiplier.

III. Multiplier hundreds, then any multiplication. This gives the class an opportunity to work up fully the theory of multiplication.

Illustrate division as the reverse of multiplication, showing with small numbers that in one class of problems the divisor is the number of equal groups into which the whole, or dividend, is to be divided, and the problem is to find the size of the groups; as when we say, "Divide \$36 equally among four people." In the other class, the divisor shows the size of the groups, and the problem is to find the number of groups, as when the problem reads, "If a man spends \$48 in buying rocking-chairs costing \$3 each, how many does he get?"

All necessary statements, rules, signs, etc., taught emphatically were needed.—Compare processes of addition, subtraction, multiplication and division.

Problems involving all operations given, for quick interpretations.

A few minutes of *rapid work* in all the fundamental operations is recommended each day.

FIFTH YEAR.

Review of multiplication and division, with lessons on factors and factoring, cancellation, divisors, common divisors, and greatest common divisors, multiples, common multiples and least common multiples. When these lessons are given, each point should be illustrated by the teacher in a strong and convincing way. Problems of a practical character. Rapid drill work.

Common fractions. Illustrate each point so clearly that children may see the meaning of the operation. Give concrete problems, in variety, for drill in applying principles, and written drill work for expertness in work.

Previous to this year, the pupils are more or less familiar with simple problems in common fractions. The work of this year should be done with the utmost thoroughness.

SIXTH YEAR.

Review common fractions and advance through decimals and compound numbers.

Use suggestions heretofore made in regard to illustrative work, and also in regard to interpretation of problems, and rapid drill work. Avoid "bookish" and mechanical work.

Review all processes the child has learned, trace similarities in the principles used.

SEVENTH YEAR.

Percentage and its applications in business. The teacher should emphasize, in business percentage, the business forms and practices of the day, many of which have not been adequately set forth in some of our text books. Aim to make the children familiar with all these common business forms.

EIGHTH YEAR.

Complete the book. Review points for the purpose of showing the unity of processes and principles, and formulating such statements as are necessary to exactness and thoroughness of knowledge.

§ VIII. GEOGRAPHY.

GENERAL.

The aim held in view throughout the course should be:—

1. To enable the pupil to hold the most important geographical facts and laws so welded together by the cause and effect relation that they will never be forgotten.
2. To train him to the habit of observing natural phenomena and of inquiring into their causes and effects.

To accomplish this, every lesson must be a link in a chain. Nothing should be taught which is not important to the next step of the course. Facts and laws used and applied over and over again, will be remembered. Facts and laws taught and left on one side without connection or application will be forgotten. If any permanent knowledge is to be gained, the boy who knows Africa because he studied it last, and can tell next to nothing of North America because he studied it first, must give place to the boy who has applied what he learned of the first continent studied to every other. The latter, after studying all the continents, has a more extensive, more permanent, and even a more ready knowledge of the first one than he had at the time of its study.

The teacher of any grade must be acquainted with the entire course of study, that he may base his lessons on previous work, and may carry out the purpose of the whole.

At the left of the outline which follows, is given a logical order of topics for the study of the earth as a whole, the continent, or the country. This is not simply an order to be followed. The class should be made to use it as a key to unlock the subject. For instance, after the class have studied the form and motions of the earth, and have performed simple experiments to discover the laws of weight and heat, and the properties of air and water, they can reason out the causes of the seasons for themselves. The simple facts of the general circulation of winds and currents are now within reach. Add the relief form of the continent, and any class will determine without aid the rainfall, and the location and direction of the main river-systems. Climate may now be thought out, and climate is the key to the remaining topics.

To carry out this work, there must be clear imaginative pictures of facts, and *after* the reasoning must come the test of appeal to authorities for accuracy, but the pupil's own grasp of relations is what gives permanency to his knowledge. In giving geographical names, be thorough as to pronunciation and spelling. Leave no half-heard, half-seen words to break down the habit of literal accuracy. If this takes too much time, lessen the number of names given. Not nearly as many facts are needed for a good general idea of geography as is sometimes imagined. The primary and secondary highlands of the continents, five or six important rivers, those projections which modify important ocean currents, those bays which form good harbors, the countries of commercial or historical importance, these are the facts to be taught thoroughly, the fifty most important cities in the world, well known rather than hundreds learned to be forgotten. Remember that sand modelling, map making, globes, pictures, specimens are only means to an end; that, valuable as they are, geography *can* be taught without them, while they may be diligently used without teaching any geography at all.

Drawing and modelling are valuable only when the pupil has the right idea in his mind and is striving to represent it. The effort to represent a blurred and false idea only impresses error. Therefore keep correct maps and models before pupils, and use drawing or modelling from memory *only* after correct ideas are gained.

The following brief outline of work is supplemented and explained by the tabular view on pages 100-3.

FIRST AND SECOND GRADES.

There need be no formal geography lessons in these grades. All the work suggested below may be incidental to reading and language lessons. Lessons in form with clay modelling, and in color, using water colors will greatly assist the child to see and picture in geography. For these lessons see outline for drawing.

THIRD GRADE.

Review points of compass and teach the signification of a map. Draw school room or school yard to scale. Mold in sand some yard or field in the vicinity also to scale. When the idea of map, of scale, and directions on the map are gained, leave this work. Its purpose is not to teach the school room or yard or make good maps of the same. Other work is suggested in the tabular view.

FOURTH GRADE.

Special drill in drawing and modelling a section of the vicinity should be carried on in connection with other work.

A general idea of the earth as a whole, its continents, oceans, etc., taken up as detailed in the tabular view.

FIFTH GRADE.

Review and extend work on the earth as a whole. Take up the continents of N. A. and S. A.

SIXTH GRADE.

Review and add Europe, Asia, Africa and Australia.

SEVENTH GRADE.

Review entire subject. Special study of United States and Minnesota.

EIGHTH GRADE.

Continue geography in connection with the studies of history and literature.

Teachers will find assistance in Frye's "Child and Nature," Redway's "Manual of Geography," Maury's "Physical Geography of the Sea;" "Geography of River Systems," Lawson; "The Earth," Reclus; "The Ocean and Atmosphere," Reclus; Guyot's "Earth and Man," Parker's "How to Teach Geography," and King's "Geography Methods."

LOGICAL ORDER OF TOPICS FOR STUDY OF THE EARTH AS A WHOLE, THE CONTINENT, OR THE COUNTRY.	FIRST AND SECOND GRADES.	THIRD GRADE.
Size.....	Lessons gaining ideas of terms large, long, broad, thick, deep, shallow, etc. The yard, foot and inch—linear, square and cubic.	From imaginary journeys based on the work on vicinity, which should be given first, gain some idea of form and size of the earth.
Form	Notice shape of horizon.	Motions of earth—Axis, Poles, Equator.
Motion of Earth.....	Lessons in testing weight of objects.	Experiments in relative weight, as of oil, sand and water, etc.
Weight.....		Simple experiments to gain the law that heat expands.
Heat.....		Forms of matter: Solid, liquid and gas.
Air.....	Forms of water: Ice, snow, hail, cloud, dew and frost, observed and described.	
Water	See stories of Races of Men.	Continue reading and stories.
Zones, Latitude and Longitude.....	Names of seasons. Notice coming and going of birds, time and direction; differences in plants. Field trips at different seasons.	Continue observations of First and Second Grades, entering results in note book.
Winds..... { Unmodified by land Currents..... }	Notice incidentally, direction and force of winds.	Record observations of winds.
Distribution of Land—Relief form.....	Children should illustrate their geographical stories by making the forms of land mentioned in sand.	Forms of land in vicinity studied and modelled in sand; hill or mountain; slope, gradual or abrupt; summit, peak, bluff, precipice, range, system; valley, meadow, swamp, marsh, plain, gorge or ravine, pass, canon.

Coast.....		
Winds.....	{ Modified by land.....	
Currents.....		
Rainfall.....		
Rivers, Lakes, etc.....	River beds, banks, etc., may be made in sand to illustrate stories.	Observation with modelling of brook or river; waterparting, basin, source, mouth, channel, bed, current, right and left banks, rapids, waterfall. Pond or lake: basin, bed, outlet, inlet, head, foot, shore.
Soil and Minerals.....	Collect common stones; learn to distinguish and give simple descriptions of coal, charcoal, iron, lead, silver, copper, tin, zinc, granite, limestone, sand, clay, loam, and gravel.	
Climate.....	Refer to climate in stories.	Refer to climate in stories.
Plants.....	Plant corn, beans, wheat, oats, a potato, orange seed, cotton seed, flax seed, rice, etc. Describe growth.	Study of pepper, nutmeg, clove, cinnamon, tea, coffee and tropical fruits.
Animals.....	Study types of different orders—cat, hen, pickerel, toad, snail, fly, worm, sponge.	Study of most important foreign animals—uses to man, etc.
Races of Men.....	Stories of life in different zones, illustrated by pictures and specimens.	Stories continued.
Occupations.....	Simple descriptions of occupations in the vicinity.	More thorough study of occupations in vicinity—visits to mills, factories, etc. Tools, processes, and products studied. Idea of trade.
Political Divisions .. { Countries } { Cities,..... } Religion, Government, and History. {	Incidentally mentioned in stories.	Incidentally mentioned in stories.

NOTE: Valuable books for above work are "Seven Little Sisters," "Each and All," "Life and Her Children," "Aunt Martha's Corner Cupboard," "Little Folks of Other Lands."

LOGICAL ORDER OF TOPICS FOR STUDY OF THE EARTH AS A WHOLE, THE CONTINENT, OR THE COUNTRY.		FOURTH GRADE.		FIFTH GRADE.		SIXTH GRADE.
Size.....		Review and extend work of third grade.		Exact size.		
Form.....				Proofs of form of earth.		Review.
Motions of Earth.....				Parallelism of Axis—Ecliptic, Circles		
Weight.....		Continue experiments in weight, with lead, cork, cotton, ice, glass, oil, and wood.		Note weight of hot and cold air, hot and cold water—specific gravity and buoyancy.		Review of Fifth Grade work.
Heat.....				Teach absorption and radiation of heat. Use a thermometer and a burning glass or piece of ice to collect rays of the sun. Teach conduction of heat.		Teach latent and specific heat. Simple experiment: Tin cups of water, of oil and of alcohol heated over lamp. Note time and temperature. Cool in dishes of water. Notice time and temperature of water.
Air.....		Prove existence of air in empty (?) bottle.		Review previous work. Teach formation of dew and saturation.		Review.
Water.....		Teach evaporation and condensation—tea-kettle, etc.		Latitude and longitude.		Review.
Zones, Latitude, Longitude.....		Locate continents and oceans in regard to zones.		Let class reason out causes of seasons.		Review and expand.
Seasons.....		Continue observations of seasons.		Main directions of wind, as determined by heat at equator and by rotation of the earth.		Review circulation of atmosphere and water.
Winds. } Unmodified by land....				Simple idea of circulation of ocean currents and the cause.		
Currents.. }				See general outline.		See general outline.
Distribution of land—Relief form.		Review work of Third Grade. Add: Tableland or plateau; desert; volcano, crater, lava; continents. Locate continents and oceans on globe.				
Coast.....		Coast, shore, cape, promontory, island; bay; gulf, sea, isthmus, neck, harbor, port, haven.				

Winds, { Modified by land..... Currents, {	Note direction of winds in storms and pleasant weather.	Land and sea breezes. Gulf stream.	Review. Teach monsoons--Japan current.
Rainfall.....	Measure rainfall after storms.		
Rivers, Lakes, &c.....	Review work of Third Grade and add: Spring, hot spring, geyser, glacier, moraine, delta, estuary, alluvial plain, bottom land, tribu- tary river system.		
Soil and Minerals.....	Study deposit of soil by rivers.		
Climate.....	Study differences in climate on globe as influenced by latitude and alti- tude.		
Plants, { Animals, {	Locate the principal plants and ani- mals on the earth, and note what influences their distribution.		See general outline.
Races of Men.	Locate on the globe.		
Occupations.....	Review work of Third Grade. Study remaining principal occupations.		
Countries, { Cities, {	A few of the most important coun- tries and cities on the globe taken in connection with occupations.		
Religion, Government, History....	Incidental reading.		

Books useful for these grades are: "Brooks and Brook Basins," "The Fairy Land of Science," Kingsley's "Town Geology," and "Madam How and Lady Why," Geike's "Physical Geography Primer," "Homes Without Hands," "Our World Reader, Parts I and II," Darwin's "Voyage in the Ship Beagle," the series of Boy Travellers and the Zigzags. Good physical geographies should be used constantly for reference.

IX. HISTORY OF THE UNITED STATES.

If the course in Reading has been followed, the way has been paved in the first seven grades for a systematic study of the history of our country. In the eighth grade this study should be begun and followed throughout the year.

A good text-book will be desirable. It should be used, not abused. In other words, pupils should be trained from the first to learn facts, not words, and to express their acquisitions in their own language. Frequent reviews and written exercises are essential.

Pupils should be encouraged to settle any questions that may come up by searching in other books. If the teacher can stimulate and judiciously direct the curiosity of the class, the battle is already half won. Hence as many standard histories and books illustrative of history should be at hand as the resources of the school will allow.

Maps and pictures should be used copiously, in order to make the events studied seem real to the imagination.

Pupils should be led always to look for causes and effects. Reasoning is no less important for a thorough study of history than memory and imagination. Indeed, the three faculties should be equally called in play and equally trained. This is the proper disciplinary value of the study.

Chronology has been called one of the eyes of history. The simile is a just one. But it would be well for teachers to remember that the eye of history is not like the eye of a fly—multiform. Without a sufficient framework of chronology, knowledge of the facts of history is a confused mass and has little value. But it is equally true that an excessive multiplicity of dates is destructive of real knowledge.

The value of knowing a given date is always and altogether relative. Under some circumstances the knowledge may be necessary. Under others, it may be wholly useless. Whether the class shall learn any particular date, then, will depend on what the teacher has in view for the time being.

The leading dates—those that mean the most—should be learned first, and learned thoroughly. Such are, for example, the year of the discovery by Columbus, of the settlement at Jamestown, the landing of the Pilgrims, the declaration of independence.

These having been well learned, others may be grouped sparingly around them.

A distinction should also be made between such dates as it is convenient to know for the use of a given recitation and may then at once be forgotten, and those that are to be retained. The latter should be fastened by frequent repetition.

Under the ordinary conditions of school work, the History of the United States should not be given less time than a full year.

It is especially recommended that considerably more time be devoted to the history of the *United States* than to that of the

colonies. It would be advisable to dwell perhaps twice as long on the period since the Stamp Act as on the period preceding.

The general scope of the examination is indicated by the topical outline in Part III, § VI, D 1. a.

§ X. PHYSIOLOGY.

PHYSIOLOGY AND HYGIENE.

Eclectic Guide to Health, Dr. Brown; Hutchinson's Physiology and Hygiene.

Supplement this work by referring to Blaisdell's Our Bodies, Mills' Physiology, Hygiene and Narcotics, and other standard works on these subjects.

Procure heart, lungs, bones, muscular tissue, etc., at butcher's to give class correct notions of these. If the school does not own a skeleton, borrow one if possible from some physician.

§ XI. COURSE OF STUDY FOR GRADED SCHOOLS.

In the preceding syllabus, each subject is divided and allotted its proper place in the eight grades. Hence a detailed course of study can at once be made by drawing together the work of the respective grades from the syllabus. It has not been thought necessary to make this tabulated statement in the Manual.



